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(54) **IMAGING APPARATUS AND CONTROLLING METHOD THEREFOR, AND LENS UNIT AND CONTROLLING METHOD THEREFOR, AND IMAGING SYSTEM**

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(58) **Field of Classification Search**
CPC H04N 5/23212; G02B 7/09; G03B 2205/0046; G03B 17/14; G03B 13/36
See application file for complete search history.

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(57) **ABSTRACT**

In a camera unit that is mountable to a lens unit having a focus lens, an AF signal processing unit generates an AF evaluation value from an imaging signal obtained by an imaging element, and a camera control unit generates drive information for moving the focus lens to an in-focus point using the AF evaluation value and transmits the drive information to the mounted lens unit. The camera control unit transmits drive information including a focus lens position served as a reference for micro vibration and an amount of movement of the focus lens indicated by shift amount of an image plane with reference to the focus lens position to a lens unit.

23 Claims, 18 Drawing Sheets